

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of )  
 )  
Amendments to Parts 1, 2 and 101 ) WT Docket No. 99-327  
of the Commission's Rules )  
to License Fixed Services at 24 GHz )

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COMMENTS OF DIRECTV ENTERPRISES, INC.

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**COMMENTS OF DIRECTV ENTERPRISES, INC.**

DIRECTV Enterprises, Inc. ("DIRECTV")<sup>1</sup> hereby submits the following brief comments in response to the Commission's Notice of Proposed Rulemaking ("Notice") in the above-captioned proceeding.

As the operator of the nation's leading direct broadcast satellite ("DBS") service, DIRECTV for more than two and one-half years has strongly urged the Commission to allocate the 17.3 - 17.8 GHz band for Broadcast Satellite Service ("BSS")<sup>2</sup> downlinks, and correspondingly, a portion of the 24 GHz band to the Fixed-Satellite Service ("FSS") to support BSS feeder uplinks, on an exclusive, primary basis.<sup>3</sup> Indeed, DIRECTV has a pending expansion system application designed specifically to take advantage of such spectrum allocations,<sup>4</sup> and the Commission in its still-pending *Blanket Licensing*

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<sup>1</sup> DIRECTV Enterprises, Inc. is a licensee in the DBS service and a wholly-owned subsidiary of Hughes Electronics Corporation.

<sup>2</sup> BSS is known as DBS in the United States, and the terms are used herein interchangeably.

<sup>3</sup> See, e.g., Redesignation of the 17.7 - 19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7 - 20.2 GHz and 27.5 - 30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3 - 17.8 GHz and 24.75 - 25.25 GHz Frequency Bands for Broadcast Satellite Service Use, *Notice of Proposed Rulemaking*, 13 FCC Rcd 19923 (1998) ("Blanket Licensing Notice"), at ¶ 73.

<sup>4</sup> Application of DIRECTV Enterprises, Inc. for Authority to Construct, Launch and Operate an Expansion System of Direct Broadcast Satellites (June 5, 1997) ("Expansion Application").

proceeding has proposed to amend the Table of Frequency Allocations to reflect co-primary FSS allocations to support BSS feeder links at 24.75 - 25.05 GHz (FSS co-primary with Radionavigation service) and 25.05 - 25.25 GHz (FSS co-primary with Radionavigation and terrestrial fixed services). The Commission has acknowledged that BSS is a "rapidly growing service" and that such allocations "may be required" to accommodate BSS growth in the United States in the next decade.<sup>5</sup>

In this proceeding, the Commission now has again proposed to amend its Table of Frequency Allocations to permit the use of the 24 GHz band at 24.25 - 24.45 GHz and 25.05 - 25.25 GHz by terrestrial fixed operators (primarily in the Digital Electronic Messaging Service ("DEMS") relocated from 18 GHz to 24 GHz), and to retain the 24.45 - 25.05 GHz band for use by the aeronautical Radionavigation service.<sup>6</sup> DIRECTV wishes to make several important points from the DBS perspective in connection with these actions.

**A. 24.75 - 25.05 GHz**

First, the *Notice* does not address the frequency range of 24.75 - 25.05 GHz, with the exception of clarifying that the spectrum from 24.45 - 25.05 GHz will now be designated to support the aeronautical Radionavigation service. There is no mention of BSS feeder link use of this spectrum, although the *Notice* may be presumed to defer on this issue to the pending *Blanket Licensing Notice*. There, the Commission has proposed that the 24.75 - 25.25 GHz band be allocated for BSS feeder links, but has questioned when that allocation should be made (since the 17 GHz BSS downlink allocation that the 24 GHz allocation would support is not scheduled to come into effect until April 1, 2007).<sup>7</sup>

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<sup>5</sup> *Blanket Licensing Notice* at ¶ 79.

<sup>6</sup> *Notice* at ¶ 8.

<sup>7</sup> The International Telecommunications Union ("ITU") has allocated the 17.3 - 17.8 GHz band for BSS downlink use beginning April 1, 2007. DIRECTV has requested the Commission to allocate this spectrum for U.S. domestic BSS use now, even if BSS

DIRECTV wishes to emphasize how important it is to preserve the spectrum at 24.75 - 25.05 GHz for BSS feeder link use. At a critical time in the development of the DBS service, it is vital that this spectrum remains available to support BSS expansion. To this end, DIRECTV questions the need for a co-primary allocation, on a going forward basis, of these frequencies between FSS and aeronautical Radionavigation services. The Commission has indicated that the only Radionavigation operations at 24 GHz, two FAA Radionavigation radar facilities located near Washington D.C. and Newark, N.J., have been decommissioned.<sup>8</sup> Thus, an exclusive primary BSS allocation to support BSS feeder links using these frequencies should not be problematic.

There also is no reason to delay in allocating this spectrum for BSS feeder links today, even if BSS operators do not begin using the band to support actual BSS uplink operations for several years. There is a strong public interest in promoting the continued development and expansion of DBS service in the United States. DBS operators must plan and secure funding for next-generation BSS satellite systems, with the requisite assurance that such systems will operate in an environment free from the interference of other co-primary services. DIRECTV therefore submits that it is in the public interest to allocate the 24.75-25.05 GHz band now on an exclusive primary basis to the FSS for the purpose of supporting BSS operations, which will provide DBS operators with the certainty that their expansion BSS systems will have the requisite spectrum in which to

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operators may not be actually licensed to use these frequencies until 2007, in order to permit DBS operators to plan and secure funding for next-generation DBS systems. *See, e.g.,* Comments of DIRECTV, IB Docket No. 98-172 (Nov. 19, 1998), at 7-10. To the extent that 24 GHz frequencies would be used as feeder links for reverse-band BSS operations at 17 GHz, the Commission has asked “whether the effective date of the FSS allocation for BSS feeder link use at 24.75 - 25.25 GHz should coincide with the effective date of the downlink BSS allocation at 17.3 - 17.8 GHz” or whether the FSS allocation “should become effective before the April 1, 2007 effective date.” *Blanket Licensing Notice* at ¶ 81.

<sup>8</sup> *See Notice* at ¶ 8; Amendment of the Commission’s Rules to Relocate the Digital Electronic Message Service, 12 FCC Rcd 3471 (1997), at ¶ 15.

operate.<sup>9</sup>

**B. 25.05 - 25.25 GHz**

DIRECTV does not take issue with the Commission's conclusion that sharing may be possible among terrestrial fixed systems and BSS feeder links at 25.05 – 25.25 GHz, given the fact that BSS feeder link stations need not be ubiquitously deployed and can be located outside of population centers.<sup>10</sup> However, DIRECTV believes that the sharing proposition may become increasingly complicated by the proposed area-wide licensing of terrestrial fixed users in these frequencies (expressly intended by the Commission to enhance coverage in rural areas),<sup>11</sup> as well as the Commission's proposal to entertain mobile uses of these frequencies.<sup>12</sup>

Given the Commission's tentative conclusion not to accelerate the allocation of 25.05 – 25.25 GHz frequencies for FSS use, it is difficult for DIRECTV to count on being able to use this band to support its feeder link operations as terrestrial systems proliferate.<sup>13</sup> Nevertheless, DIRECTV urges the Commission to continue the exploration of FSS/FS sharing at 25.05 – 25.25 GHz, since this spectrum could become a much-needed source of additional capacity to support BSS feeder link operations in the event that such sharing is possible.

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<sup>9</sup> Indeed, the need for such certainty at 24.75 - 25.05 GHz is heightened by the fact that the availability of spectrum to support BSS feeder links at 25.05 - 25.25 GHz is highly questionable, depending upon the feasibility of FS/BSS sharing in those frequencies (*see infra* at 4).

<sup>10</sup> *Notice* at ¶ 7.

<sup>11</sup> *See id.* at ¶ 9.

<sup>12</sup> *Id.* at ¶ 6.

<sup>13</sup> Thus, while DIRECTV supports ultimate co-primary status with the DEMS service at 25.05 - 25.25 GHz (as proposed in the *Blanket Licensing Notice*, and as suggested again in the *Notice* here), DIRECTV currently is designing its expansion system to use only the 24.75 – 25.05 GHz frequencies for its feeder link operations. *See* Letter to Magalie Roman Salas, Secretary, Federal Communications Commission, from James H. Barker, Counsel for DIRECTV Enterprises, Inc. (Sept. 16, 1999).

**C. IT IS NOT PREMATURE TO BEGIN PLANNING  
FOR THE USE OF THE 24 GHz BAND FOR BSS  
OPERATIONS**

It is vitally important for the Commission to provide the necessary certainty to the DBS industry in the form of exclusive primary allocations of spectrum to support “reverse band” BSS operations in the 17 GHz and 24 GHz bands. Technical planning for the use and licensing of these bands to support BSS operations must begin now. Satellite system planning, financing, technology development, and ground system design typically take five years or more -- meaning that BSS operators should be licensed to use these bands no later than 2002. A processing round typically takes 1-2 years, as does the promulgation of service rules, which in this instance will likely address novel issues.<sup>14</sup> There will also be issues of coordination for the Commission to resolve with its counterparts in Canada, Mexico and elsewhere.

The bottom line is that the Commission need not and should not wait to begin on-the-record consideration of the issues affecting, and the service rule and licensing requirements for, reverse band BSS operations and – most relevant here – supporting 24 GHz feeder link allocations. Given the lead times necessary for sound spectrum management system licensing, international coordination and careful satellite system construction and deployment, the Commission should promptly allocate 24 GHz spectrum to support BSS operations.

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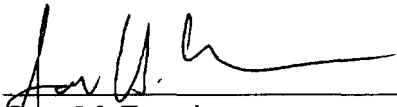
<sup>14</sup> For example, as mentioned in its rulemaking petition, DIRECTV believes that there would be a number of public interest benefits associated with Commission adoption of a 4.5 degree orbital spacing policy in licensing BSS space stations to operate at 17 GHz (downlink), including at least doubling the available spectrum resource available for U.S. service under the Planned BSS Band. *See Notice* at ¶ 7 n.17; *Blanket Licensing Notice* at ¶ 82.

DIRECTV accordingly urges the Commission to allocate spectrum, and to adopt changes to its rules, consistent with the positions set forth above.

Respectfully submitted,

DIRECTV ENTERPRISES, INC.

By:



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